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POSSIBILITIES OF A GENERAL-SURVEY COURSE IN FINANCE

I. INTRODUCTORY

The history of collegiate instruction in the field of finance, as I see it, runs somewhat as follows: With the rapid increase in the volume of material of economic importance and in the range of subjects to be discussed, it became impossible, some twenty years ago, to give in the elementary course in economics ample treatment to all of the economic issues of the time. One of the earliest special courses to be developed was that of money, or money and banking. This is attributable in part to its practical interest to students, in part to the fact that a larger volume of material was at an early date available here than was the case in most other lines, and in part to the fact that it presented an interesting field of value analysis at a time when the theory of value occupied a dominant position in general economic theory.

These first courses in the field of money and banking did not, however, go far beyond the limitations imposed by the general introductory course in economics. They were what are known as *applied* courses; but they largely consisted of an elaboration—perhaps a better term would be dilution—of the money and banking section of the elementary course in economics, the chief difference lying in the amount of historical and descriptive material that was incorporated. The point of view and the scope were practically identical with those in the elementary course. The content of such a course may be briefly summarized as follows: Money serves as a medium of exchange, common denominator of value, and standard of deferred payments, the first and third of which give rise to most of the problems of monetary and banking regulation. These problems relate to the principles of coinage, bimetallism, the maintenance of the parity of government paper money, bank notes, and deposit currency, the relation of money and credit to prices, and the control of the price level.

With the increasing demands for more and more work in the field of practical economics which developed in the opening years of the present century, and particularly during the past ten years, with the rapid growth of schools of business administration, a whole series of additional courses in the field of finance has been developed. As now one financial subject and then another attracted public attention or a special student clientèle, or appealed to the interests of a particular instructor, additional courses in the field were offered. These were commonly of the short-course variety—two or three hours a week for a quarter or semester, the particular subjects and the amount of time devoted to them, however, varying widely in different institutions. A survey of the curricula of American universities and colleges reveals that courses in the field of finance have, until very recently at least, just grown—without any attempt to organize the material into a coherent whole, without any sequential development of courses, and with little regard for the relationship of the financial system to the general economic organization.

The finance courses now being given in American colleges and universities may be divided into two classes: (*a*) those primarily in the field of theory or principles, such as would ordinarily be found in a department of economics; and (*b*) those of a more practical nature such as might be expected to find a place in a school of business administration. Those in class (*a*) are as follows:

Money
Money and the Medium of Exchange
Money and Banking, or Money and Credit
Banking, or Banking and Currency
Principles of Banking
Banking and Finance
Banking, Money, and Foreign Exchange
Banking Theory and History
Banking Legislation
Commercial Banking
The Federal Reserve System
Foreign Banking
The Monetary Systems of Europe
Central Reserve Banking
International Banking and Finance
International Banking and Foreign Exchange
Foreign Exchange
Money, Foreign Exchange, and Wall Street
Foreign Trade and Exchange
Foreign Exchange and the Money Market
The Money Market
The Credit System
Credit, Price Levels, and Business Cycles
Money, Prices, and the Cost of Living

Business Cycles
Crises and Depressions
Economic Crises
Financial Institutions
Financial Institutions and Investments
Financial Organization of Society
Mortgage Banking and Agricultural Credit
Agricultural Credit
Rural Credit

Those in class (*b*) are as follows:

Bank Organization and Management
Bank Administration
Bank Management
Bank Management and Banking Practice
Banking Practice
Banking Principles and Practices
Banking Operations
Bank Portfolios
Bank Accounts, Mortgages, and Real Estate; Executors and Administrators; Insurance
Management and Control of Trust Funds
Credits and Collections
Domestic Credits
Foreign Credits
Commercial Paper
Mercantile Paper
Credit Management
Investment Institutions and Brokerage
Investment and the Money Market
Insurance and Investments
Investments, the Stock Exchange, and Speculation
Bonds and Bond-Selling
Investment Finance
Investments and Investment Banking
The Mathematics of Investments
Investments and Business Cycles
Mathematical Theory of Investments
Public Utility Investments
Commercial Credit
Stock Exchange Organization and Money Markets
Speculative Markets and Business Cycles
Brokerage
Stock Brokers
Stock and Produce Exchange Markets
The Work of Wall Street
Business Investments
Business Finance and Investments
Corporation Finance
Corporation Finance and Investments
Corporation and Trust Finance
Corporation Management and Finance
Corporation Accounting
Combinations or Trust Finance
Personal and Household Finance
Railroad Finance
Foreign Exchange Practice
Foreign Exchange and Foreign Investment
Foreign Public Bonds
Economic and Financial Investigation

It will be seen from this long list of courses that there is first a striking lack of standardization in terminology. The list of eighty courses can probably be more than cut in two by the mere process of standardizing terms. But even more significant than the variation in nomenclature is the diversity in scope and content of particular courses, whether in class (*a*) or class (*b*). Thus we

frequently find a course in money alone; sometimes we find a separate one in the principles of banking; and often a combined course in money and banking. Sometimes foreign exchange is included with money and banking, while again it is organized as separate course or treated as a part of a specialized course in the money market. Sometimes a course is confined to commercial banking; and sometimes it is devoted to financial institutions in general. In fact, a study of the course descriptions given under the titles in class (*a*) indicates almost every conceivable combination of financial material.

This characterization is equally true of the practical courses in the field. Witness, for example, such titles as the following: Foreign Exchange and Foreign Investment; Foreign Credits; Railroad Finance; Corporation Finance; Corporation Finance and Investment; Business Finance and Investment; Business Finance; Combinations and Trust Finance; Investments, the Stock Exchange, and Speculation; Investments and Business Cycles; Insurance and Investments; Investment Institutions and Brokerage; etc.

More significant than the great variety of terminology and diversity of content in the financial courses in different institutions is the general lack of any plan or scheme or presentation of the financial material given in any particular institution. With hardly an exception the larger institutions offer each year a number of special courses in the field of finance, with little regard to the correlation of material or to the development of the subject in a sequential manner. That is to say, there is as a rule no general survey course, no attempt at articulation of the various independent courses, and no prerequisite for any of the courses—all standing practically on a par. The following outline of courses in one of our larger universities will serve to illustrate concretely the truth of the foregoing statements. It is not chosen with any thought of making invidious comparisons; we have all been living in glass houses.

UNDERGRADUATE COURSES

Corporation Finance (Winter Session) 2 hours. This course deals with the problems of the corporation in connection with the raising of fixed capital.

Corporation Finance (Spring Session) 2 hours. This course deals primarily with the marketing of securities, including the mechanism of the stock exchange. The previous course is not a prerequisite; but it is recommended, and in case it is not taken the student is required to do some extra reading.

Investment Finance (Winter Session) 2 hours. (Given in Extension Division.) This is an ordinary course in the principles of investment. No prerequisite; but students who have had the two preceding courses are given only half-credit.

Investment Finance (Spring Session) 2 hours. This is the study of investment analysis, with enough corporation finance for background purposes. No prerequisite; but only half-credit for those who have had the foregoing courses in corporation finance.

Principles of Money and Banking (Winter Session) 3 hours. A general introductory course, giving the theory and history of money, fundamental principles of banking, etc. There is no prerequisite.

Elements of Banking Practice (Spring Session) 3 hours. An elementary course in banking organization and routine procedure. No prerequisite.

GRADUATE COURSES

Analysis of Financial Reports (Spring Session) 2 hours. Practical application of accounting and auditing principles to the analysis and criticism of the financial reports of corporations. No prerequisite. Open to undergraduates with consent of instructor.

Investments (Winter Session) 2 hours. An ordinary course in investments. No prerequisite.

Investments: the Stock Exchange and Speculation (Spring Session) 2 hours. This course has as prerequisite the two courses in Corporation Finance listed above.

Commercial Paper (Winter Session) 2 hours. Detailed discussion of the different types of commercial paper and the problems of short-term credit, including the restrictions and limitations upon each class of instrument. No prerequisite.

Bank Portfolios (Spring Session) 2 hours. A detailed study of bank loans and investments. No prerequisite.

Banking Seminar (Spring Session). No prerequisite; but presumably open only to advanced students.

Banking and Credit (Winter Session) 2 hours. The general theory of credit and prices; business statements; practical study of credits; relation of banking credit to business; business indexes and barometers; domestic exchange; and theory of clearing and cancellation of bank indebtedness No prerequisite.

International Banking and Foreign Exchange (Spring Session) 2 hours. A practical course in international finance and foreign exchange. No prerequisite.

Central Reserve Banking (Winter Session) 2 hours. Comparative study of the central reserve banking systems of the world. No prerequisite.

The Federal Reserve System (Spring Session) 2 hours. No prerequisite.

Banking Operations (Winter Session) 2 hours. This course is rather in the nature of principles of bank management than of routine bank operation. No prerequisite.

Banking Legislation (Spring Session) 2 hours. A discussion of the most important phases of federal and state banking legislation in so far as it affects the actual operation of the bank. No prerequisite, but intended to follow the course in banking operations.

Financial Institutions (Winter Session) 2 hours. A discussion of the function and operation of non-commercial banking institutions—trust companies, savings banks, private banks, and investment houses. The principles of long-period banking credit as contrasted with those of short-term commercial lending.

Mortgage Banking and Agricultural Credit (Spring Session) 2 hours. A study of long-term credit and investment operations in connection with the development of land and permanent improvement or construction enterprises. Comparative analysis of the rural credit and mortgage banking systems of Europe as contrasted with the systems (federal and state) now in process of development in the United States.

It will be noted that in this organization of material there is nowhere any general course in finance; there is only a series of short courses on financial topics. Moreover, except for the advanced course in Investments: The Stock Exchange and Speculation, there are no prerequisites. It should be observed, however, that the arrangement of courses in winter and spring sessions is doubtless designed with a view to sequence; but the fact that the spring courses characteristically have no prerequisite does not guarantee that such courses will have a group of students that is homogeneous so far as previous training is concerned. Moreover, one would expect to find in a spring-session course in Bank Portfolios, some who had the winter-session course in Banking and Credit, others the winter-session course in Commercial Paper, and still others the winter-session course in Central Reserve Banking.

It should also be observed that the graduate courses, with the single exception of the course in Investments: The Stock Exchange and Speculation, are not built upon the undergraduate work in

finance. For example, a graduate student might take the winter-session course in Commercial Paper without ever having had a course in the Principles of Money and Banking, Corporation Finance, or Banking and Credit. Or he could take a course in the Federal Reserve System in the spring session, without ever having had any preliminary instruction whatever in the field of Money and Banking.

Finally, it should be noted that the graduate courses—with one exception—are not open to undergraduates. An undergraduate in the institution in question cannot take the more elementary courses listed in the graduate curriculum no matter how many of the undergraduate courses in the field he may have had; and on the other hand a graduate student can take any of the graduate courses, quite regardless of the fact that he may never have had any work in finance as an undergraduate and only such general instruction in political economy as one might get from a study of one of Mr. Scott Nearing's numerous treatises.

II. SHORTCOMINGS OF THE TRADITIONAL COURSE IN MONEY AND BANKING

This general survey of the organization of the work in finance in American universities and colleges will, in the main, serve, I believe, to show that there *is* no organization. It is my task to suggest in this paper the possibilities of developing the work in finance in some systematic and orderly fashion based upon some central idea as to the purposes of financial instruction. To this end the main emphasis will be devoted to a discussion of the scope and content of what may be designated a general survey and unifying course in the financial field.

I should perhaps state at the beginning that my present formulation of such a course is the result of some six years of experimentation. And I can perhaps best make clear the reason for my present views on the subject by relating my personal experiences. I was reared in the way of all good economists of the old school, reverencing eternal economic verities and traditional methods of instruction—fearing alike the professors and their economic erudition. Accordingly, when early in my teaching career I was

asked to give a course in Money and Banking, I eagerly seized the opportunity presented to instruct my students in the accepted principles of the science. In brief, on the money side I gave them the functions of money, the history of bimetallism, and the regulation of the various forms of metallic and paper currency; and on the banking side I discussed the functions of commercial banking in creating bank notes and deposit currency (being careful to point out that commercial bank loans were extended *only for* the purposes of commerce or marketing); the problems of regulation in the United States and the superiority of European central bank systems. Finally, I gave them the "true dope" on the relation of money and bank currency to prices.

But I found the subject a somewhat difficult one to teach—on the whole rather dull and uninteresting to the students. Whether this was attributable to the fact that in the elementary course in economics they had already been set straight on the functions of money, bimetallism, bank credit, and the quantity theory, or whether the exposition of the inherently practical and fascinating field of finance had fallen into an academic and unrealistic form, I have never quite made up my mind. In any event my students were never sufficiently thrilled over this course to cause me any regrets when in due course I was led to undertake a reorganization not only of the course in money and banking but also of the entire field of finance.

As I conceived the task of organizing the work in finance, it was necessary to have in mind alike the needs of the general student, the would-be economist, and the would-be business man. And I may say at once that I have never found any reason, so far as the introductory course in finance is concerned, for presenting the material in any different way for any particular part of the constituency.

My first experiment was an attempt to make a general course in money and banking serve as a satisfactory prerequisite to advanced courses in the field. In brief, my experience convinced me that many of the specialized advanced courses in the field of finance could not well be built upon the traditional introductory course in money and banking—owing to its extremely limited

scope, to which reference has already been made. Moreover, the traditional course seemed, to my students at least, highly academic and without much practical relation to real business and financial affairs, except, of course, here and there in particular sections, such as those dealing with the practical operations of a commercial bank and the nature and purpose of the Federal Reserve System. So considerably have I subsequently changed the scope of the general-survey course that I feel it necessary to lay especial emphasis upon what I now conceive to be the limitations of the traditional treatment of money and banking.

The place of money and banking in the orthodox treatment of political economy may be set forth somewhat as follows: Economics may be divided into production, exchange, and distribution. With this division of the subject-matter, an outline of the broad problem of political economy may roughly and colloquially be paraphrased in the following terms: Human wants constitute the point of departure, the desire for consumptive goods being the mainspring of human activity and productive effort. Then are discussed the fundamental factors of production—labor, land, capital, and management. Having gotten the goods produced and on the market, the problem of evaluation for the purposes of exchange arises and this leads into a discussion of the laws of value. Speaking of exchange, one is reminded that money serves as a standard in which exchange values are expressed and a medium by which the ownership of goods on the market is transferred. And speaking of money as a medium, one must also note that there are various kinds of money, among them being bank money, both notes and deposit currency. Having gotten these goods produced and exchanged, it is next in order to consider the division of the social dividend among the various agents of production—land, labor, capital, and management, respectively.

In elucidating the principles of economics in accordance with this division of the subject-matter, most writers leave the impression that money is largely divorced from the productive process. For instance, Taussig, after concluding Book I, "The Organization of Production," begins the discussion of Book II, "Value and Exchange," thus: "The division of labor brings in its train the

exchange of goods between those who undertake the separated acts of production. Exchange in turn brings the phenomenon of value, money, and price,"[1] and adds in Section II: "Almost as early as the division of labor a medium for exchanging the various products came into use."[2] Hence a discussion of the phenomenon of money and credit in connection with the exchanging of goods that have been produced. Taussig does not even suggest that money is in any way a productive agent. He merely notes "how completely division of labor and exchange work out their results through the use of money."[3] The point of view exemplified by Taussig in the foregoing excerpts is the one most commonly found in general treatises. It is to be added that such writers do not deny that money is not at least indirectly an agent of production; but they undoubtedly give the impression that it has no relation to the processes of production.

Some writers, it is true, relate money to the productive process by including in the classification of utilities, *possession* utilities. As goods are not fully produced when they leave the factories or the farms, they must be transported, hence *place* utility; they must often be stored, hence *time* utility; and, finally, their ownership must be transferred in the market place, hence *possession* utility. Money as a medium of exchange, or of transferring ownership, thus serves in the final stage of the complex productive process. But the text which indicates that in this way money plays a direct part in production still leaves the relation of money to economic organization anything but adequate. The analysis would indicate that money is of service only in the last stage of the productive process, in connection with the exchange of finished goods between producer and consumer. What is not deducible from such analysis is that money is also the means of organizing production, of bringing together the various agencies of production (land, labor, capital, and managers), and fusing them into a business organization that can turn out a product capable of ministering to human wants. Society is now organized on a pecuniary basis and money is the indispensable prerequisite to the assembling of the concrete

[1] Taussig, *Principles of Economics*, rev. ed., I, 113.

[2] *Ibid.*, p. 114. [3] *Ibid.*, p. 115.

instruments of production. The business man uses money, or its equivalent, to purchase materials for the construction of his factory; he uses his money in buying the supplies and materials necessary for its equipment; he bids competitively in the markets of the world for the raw material for use in the process of manufacturing; and he employs money as a means of attracting to his organization the requisite labor force and corps of administrative officials. In short, every act of the productive process itself revolves about the use of money. There is, of course, nothing particularly new in this statement of the case. What is interesting is that the writers of general treatises on economics have usually regarded it as unnecessary to make any mention of the part that money plays in the organization of productive activities, thereby giving the whole subject a very imperfect as well as unrealistic presentation.

The treatises on money and banking which follow the traditional conception laid down in the general treatises—that money is used in exchanging goods that have been produced through the united effort of land, labor, and capital—in similar fashion make no reference to the part that money plays in the organization of productive activities. In connection with the function of money as a common denominator of value, the current statement is that the existence of a common denominator or standard of value saves the individual the necessity of comparing a large number of exchange rates,[1] thereby burdening his weary mind with innumerable exchange.

As a matter of fact only a relatively small number of exchange ratios would need to be kept *in mind.* This method of stating the significance of the common denominator of value results from the traditional practice of discussing money only under the heading of *exchange.*

But when one shifts the point of view from the significance of money in exchanging consumptive goods that have already been

[1] As Mill puts it: "If a tailor had only coats, and wanted to buy bread or a horse, it would be very troublesome to ascertain how much bread he should obtain for a coat, or how many coats he should give for a horse. The calculation would have to be recommenced on different data, every time he bartered his coat for a different kind of article."—*Principles of Political Economy*, 5th London ed., II, 17–18.

produced, to the part that a common denominator of value, or pecuniary unit of calculation, plays in the organization of productive activity, it becomes readily apparent that money in this capacity also plays an extremely important rôle in the field of production. The truth is that without a common denominator of value—or pecuniary unit—it would be impossible to keep financial accounts or to give commensurability to unlike units of consumptive goods, capital goods, labor power, what not. Without the pecuniary unit all other units of measurement would be valueless for the purposes of business. As a qualitative unit of measurement the dollar serves as a guide to the business man in the development of new methods and new technique, in a word, in the making of the innumerable decisions which he must render from day to day. The price-and-profit system based on the pecuniary unit serves as a guide in the directing of labor and capital from place to place and from industry to industry. Accounting systems based on the dollar unit also make possible governmental supervision and control of industrial affairs. All this finds no place, however, in the traditional discussion of the rôle of money in economic activity, despite the pretension that the analysis is disclosing the way in which society has organized itself for the production of wealth.

In connection with the standard of deferred payments, somewhat more attention has been given to the relation of money to business activities in the field of production. For it is not infrequently pointed out that a poor standard of deferred payments is a great deterrent to business enterprise, owing to the increased business risks that result therefrom. But even in this case the relation of the standard of deferred payments to the conduct of business is usually treated as an incidental feature. The emphasis is rather placed upon the relation of the standard of deferred payments to prices. And in discussions of the price level the emphasis is placed upon the equities between debtors and creditors in connection with long-time borrowing operations and upon the effects of changing prices upon the various classes of the community. The question of individual justice is apparently the primary consideration.

Now the problems of securing a stable standard of deferred payments, and the maintenance of parity with this standard of the various forms of token and representative currency, have been among the most fascinating inquiries in the whole realm of political economy and by many have come to be regarded as about the only significant financial issues that need concern the economist. As a professional friend of mine once said: "The economist's problem is the price problem. Why should he therefore concern himself about other financial issues?" The obvious answer is that it is only one of many problems of vital interest to the economist who would understand the significance of money in industrial society. The perennial controversies that have raged about the relation of money to prices have, however, tended to shift the emphasis away from other important monetary considerations and to obscure the rôle that money plays in connection with the organization of economic activity.

Now the point to all the foregoing discussion is merely this: a discussion of money, and of bank notes and deposit currency, which assumes that the sole purpose of money is to exchange goods that have been produced by land, labor, and capital (without the use of money) is not only academic, in the objectionable sense of that term, but it provides no basis for an adequate discussion of either the problems of business finance or the problems of economic organization. To consider for the moment only the limitations of such an analysis from the point of view of business instruction, it is never conclusive to the business man or the business student to be told that the function of money is to exchange goods that have been produced. Nor is he convinced of his error when he is told that "capital" does not consist, as one fancies, of money or purchasing power, but only of concrete material instruments such as factories, machines, etc.

In the first instance, the business man's capital does, in fact, consist of money, or its equivalent, and he uses it to buy and assemble land, labor, capital, etc., and to weld it into a productive organization. That fourth factor in production, sometimes designated as organization, is worked out only through the instrumentality of money. I conclude therefore that if a general course in

money and banking is to be organized for the purposes of the business student the point of view from which money is discussed must be materially altered. We must see the problem of money as it confronts the business man engaged in any of the fields of production, or exchange, in our pecuniary society. Incidentally, the student may of course still be made to see that goods (and services, for that matter) in final terms do get exchanged by means of money. And similarly, the economic consequences to the various groups in society of changes in the level of prices may also be discussed. But in this connection I would add that the problem of price changes, as it affects the productive activities of business, should not be ignored as is customarily the case both in general treatises on economics and in the specialized texts on money and banking.

So much for the shortcomings of the traditional discussions of *money*, particularly as viewed from the standpoint of the business curriculum. My efforts to organize a general-survey course in money and banking revealed an even greater difficulty or weakness on the banking side. For, as is already indicated, the emphasis upon money and its relation to prices has led to a confinement of the discussion of banking to commercial banking only—this for the reason that commercial banking alone provides, in bank notes and deposit currency, media that are acceptable in exchanging goods. In consequence, the whole discussion of banking, with the exception of a brief section devoted to financial panics, has usually centered around the maintenance of the parity of bank currency with gold; the function of bank currency in exchanging goods; and the relation of bank credit to prices. I trust I will not be understood as objecting to such discussion; my point is merely that this narrowing of the scope of banking has rendered the traditional treatment of finance quite inadequate for the purposes of the business curriculum or, for that matter, for the purposes of the general economics curriculum. For example, one repeatedly finds the doctrine that the *commercial* bank should (properly) function only in connection with commerce—with the marketing process, whereby the economic gap between producer and consumer is bridged. This is not only inadequate theory; it embodies a

fundamentally erroneous conception of the nature of the modern business and financial organization.

Now the numerous financial agencies and institutions, other than the commercial bank, which are found in modern economic society did not naturally fall within the scope of this traditional theory of the rôle of money and banking in the economic system. Accordingly, we usually find only incidental reference to them, either in the general texts on economics or in the special works in the field of money and banking. It was not surprising, therefore, that one should find, as I did, that the traditional study of commercial banking did not serve as an adequate basis for a survey course in the financial field. Somehow or other the large number of other financial institutions and agencies which had grown up in modern times and which are made use of by the business man of today must be brought into the picture. I therefore conceived the idea of a general-survey course which was designated "Financial Institutions."

III. AN ATTEMPTED GENERAL-SURVEY COURSE IN FINANCIAL INSTITUTIONS

In brief, the idea in the course on Financial Institutions was to disclose to the student the nature and the functions of all the financial agencies and institutions that exist in the modern world. Money, in its various functions, was considered—as also the work of commercial banks, savings banks, investment banks, insurance companies (in their banking aspects), the stock exchange, etc. But the difficulty here was that one was tempted either to include within a single course everything that had been discussed in the whole series of specialized courses in the various divisions of finance—a task to be despaired of—or else to make the course a very elementary one, designed merely to give the student a bird's-eye view of financial problems and of the financial system in general. There was, indeed, grave danger that it would be of so elementary and fragmentary a nature as to be sadly wanting in genuine intellectual content. Experience showed that what was really needed was not a series of descriptions or discussions of financial institutions in turn, but an analysis which would reveal

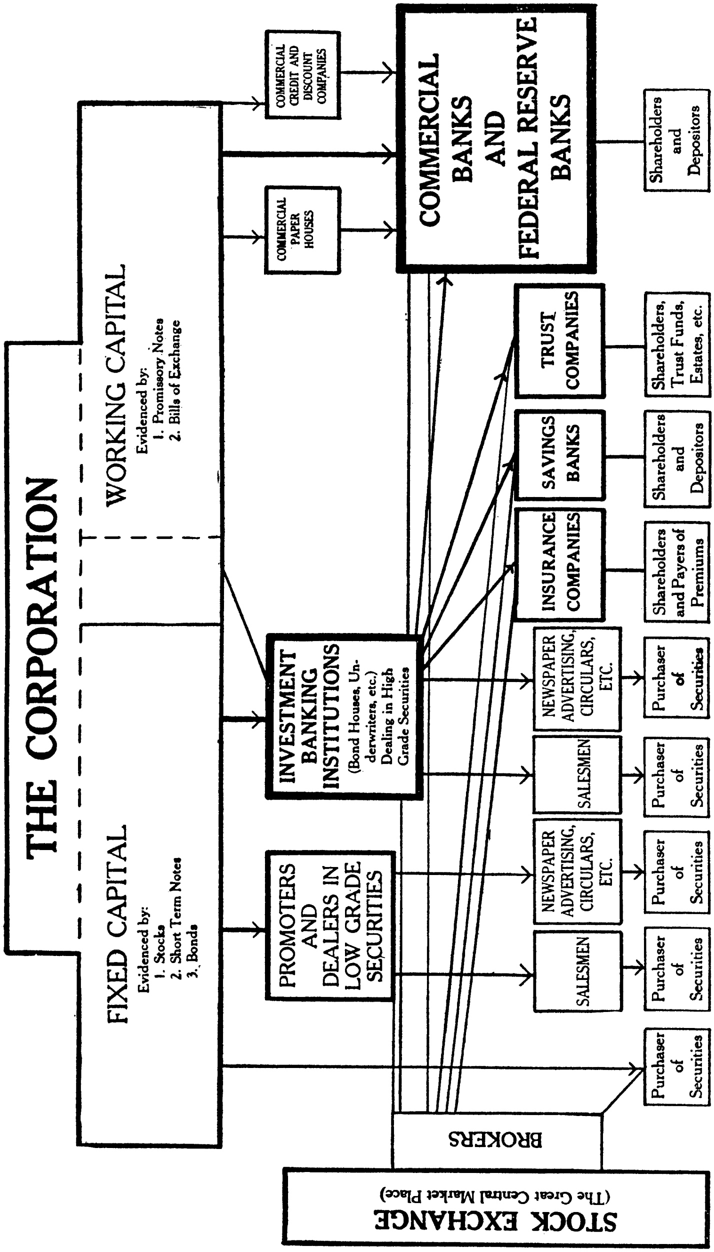
the broad outlines and the significance of the financial system conceived as a unit and as an integral part of the general economic organization. The individual financial institutions all needed to be related in some fashion as parts of a general financial structure. *The tie that binds* must somewhere be found if a general-survey course in finance were to be worthy of the name. This, I gradually came to feel, was quite as important for the purposes of general economic analysis as for the purposes of the business curriculum.

IV. THE SURVEY COURSE IN FINANCIAL ORGANIZATION

At least one tie that binds the financial system together, one point of view that reveals a correlated financial structure within the larger economic organization, has been discovered. A diagrammatic presentation of a portion of the financial structure is shown below. A similar diagram, with appropriate variations, may be drawn for partnership and agricultural enterprise.[1] But for our present purposes this diagram from the point of view of corporate industry will suffice.

The purpose of this diagram is to indicate that in a capitalistic pecuniary society all of the financial institutions and agencies which exist have been developed for the purpose of facilitating the raising of the capital (funds) required by modern business enterprises. For purposes of exposition this capital is divided into *fixed* and *working capital.* The fixed capital is raised through the sale of stocks, short-term notes, and bonds—the funds being derived from the ultimate purchasers of these securities, that is, from the rank and file of individuals and investing institutions. Sometimes the purchaser of securities is reached directly, without the help of any financial intermediary; sometimes he is reached through promoters and dealers in low-grade securities; and sometimes through investment banking institutions dealing in high-grade issues. These institutions in turn utilize salesmen, newspaper advertising, circulars, etc. And in so far as securities are purchased by insurance companies, savings banks, trust companies, and commercial banks, these institutions serve as secondary

[1] For such diagrams see the writer's text on *The Financial Organization of Society,* pp. 134, 650.


THE CORPORATION
FIXED CAPITAL
Evidenced by:
1. Stocks
2. Short Term Notes
3. Bonds
WORKING CAPITAL
Evidenced by:
1. Promissory Notes
2. Bills of Exchange
COMMERCIAL CREDIT AND DISCOUNT COMPANIES
COMMERCIAL PAPER HOUSES
COMMERCIAL BANKS AND FEDERAL RESERVE BANKS
Shareholders and Depositors
TRUST COMPANIES
Shareholders, Trust Funds, Estates, etc.
SAVINGS BANKS
Shareholders and Depositors
INSURANCE COMPANIES
Shareholders and Payers of Premiums
INVESTMENT BANKING INSTITUTIONS
(Bond Houses, Underwriters, etc.)
Dealing in High Grade Securities
PROMOTERS AND DEALERS IN LOW GRADE SECURITIES
NEWSPAPER ADVERTISING, CIRCULARS, ETC.
SALESMEN
NEWSPAPER ADVERTISING, CIRCULARS, ETC.
SALESMEN
Purchaser of Securities
Purchaser of Securities
Purchaser of Securities
Purchaser of Securities
Purchaser of Securities
BROKERS
STOCK EXCHANGE
(The Great Central Market Place)

intermediaries between the furnisher of the funds and the borrowing corporation.

The stock exchange appears at one side as a great central market place, alike for securities that have once passed through the hands of financial middlemen to purchasers, and for securities that have not been finally absorbed by the investing public but are still being carried in the speculative market. The transverse lines connecting the stock exchange with the purchaser of securities and with other financial institutions are designed to suggest that interrelations exist between these institutions. It will be noted also that the diagram indicates that some of the funds derived from the sale of stock, short-term notes, and bonds are used for working-capital purposes. (Note the dotted line through the working-capital side of the chart.)

On the working-capital side, the chart indicates that corporations borrow funds for operating expenses from commercial banks—much of it directly, but some of it indirectly through the intermediation of commercial-paper houses and commercial-credit or discount companies. The transverse lines connecting the commercial banks and the Federal Reserve institutions with investment banking institutions and the stock exchange are designed to indicate interrelations in the financial system, some of which will be presently discussed.

For the moment, what needs emphasizing is that these financial institutions are all engaged in a common task of transferring the funds of the ultimate savers of society listed at the bottom of the diagram to the borrowing corporation which is placed at the top. Together these institutions constitute a financial structure; they make up the component parts of the modern financial system about which all economic activities center, on the basis of which industrial society is organized.

The advantage in organizing a survey course in finance around this central problem of raising fixed and working capital for modern business uses is—from the point of view of the business student—this: that one may thus see at a glance the relation of the individual business to each and every part of the financial system. The modern business has its setting in the midst of a financial system

upon which it is at all times in manifold ways dependent; and a sound financial policy can be formulated only in the light of knowledge of the services rendered by each of the financial agencies and institutions and of the working of the financial system in general.

In such a survey course I have found it possible to present a general view of the problem of raising capital that involves something more than mere description of the work or the various financial institutions, that provides sufficient mental pabulum for the most aspiring student. At the same time such a general-survey course does not need to exhaust the subject-matter in any particular division of the subject. For example, while it touches upon the problems of corporate finance in so far as it discusses the forms of credit instruments and the financial institutions that may be utilized by a business man in raising capital, it makes no attempt to discuss in detail the best method of financing for particular corporations under specified conditions. It does, on the other hand, make possible the giving of an advanced course in corporation or business finance where the instructor may take it for granted that every student in the class knows the general distinction between fixed and working capital, between bonds and the various types of stock, and, more important, knows something of the services that are rendered by the numerous types of financial institutions upon which the financing of business is dependent. Similarly, a course on the stock exchange or on brokerage may proceed from the assumption that the student already has some knowledge of the organization of the stock exchange and the place that it occupies in the general financial system. And so, also, in each of the advanced courses in finance it will be found that all the students have a common background of information and a general view of the relation of the particular part of the financial system which they are to study in detail to the financial system in general.

From the point of view of advanced courses in economics as distinguished from those in the school of business administration, the same consideration holds. If all the students have had a general-survey course in finance such as is here suggested, it is no

longer necessary to spend several weeks in each advanced course on elementary topics or else shoot over the heads of a considerable portion of the class.

Quite as important is the elimination of duplication that is made possible in advanced courses. Who of us has not, either as student or teacher, in the field of finance as well as in other divisions of the economic and business curriculum, been appalled by the amount of duplication that occurs? All will of course agree that some duplication is both inevitable and beneficent. But the recognition of this fact by no means warrants a fraction of the duplication of effort that has characterized our work ever since the multiplication of courses began. For example, as a student I took a course in money, which of course included a discussion of the controversial issues on the relation of money and prices. Such a discussion inevitably raised the question of bank credit and thus required on the part of the instructor a more or less detailed discussion of banking operations and the phenomenon of credit currency. Then later I took a course in banking, where special emphasis was placed upon the problem of banking reform. So far as I personally was concerned, there was no need in this course of again discussing the details of banking operations and the phenomena of bank credit. But about 50 per cent of the class had not had the course in money, just as when I took the course in money about 50 per cent of that class had not previously had a course in banking. In consequence it was necessary for the instructor in both courses to discuss the general principles of banking and credit. Still later I took a course in crises and depressions. In the course on banking I had perforce studied in some degree the problems of financial crises and panics; but since a considerable percentage of the class had not had the course in banking, their minds were a complete blank so far as the phenomena of the business cycle are concerned. Thus here, as in each of the other cases, the level of instruction had to sink to the level not merely of the minimum intelligence but of the minimum previous training of the members of the class. I think it is no exaggeration to say that one-third of the time of the class was wasted in needless duplication which could have been avoided by a general-survey

course embodying material common to each of the courses appropriately lying in the field of more advanced study. A general-survey course makes it possible for the advanced courses to be really advanced.

V. THE RELATION OF FINANCIAL ORGANIZATION TO ECONOMIC ORGANIZATION

In the foregoing discussion reference has been repeatedly made to the relation of the financial system to the general economic organization, and the statement has been made that modern industrial society is financially organized and controlled. How, specifically, is the modern financial structure linked up with the general economic organization, and how, concretely, does it control the economic system? One answer to this problem has already been suggested in connection with the rôle that the pecuniary unit and the price system plays in the organization of economic activities. Another is to be found in the interrelations of finance with the problems of the business cycle.

Courses on money and banking have characteristically attached relatively little importance to the business cycle. True, there has usually been a chapter devoted to a discussion of the events of a financial panic and the devices that are necessary to prevent the periodic breakdown of the financial machinery. But there has seldom been any attempt to link up the whole problem of banking and finance with the phenomena of the business cycle, conceived as the normal condition of industry. Financial theory, like general economic theory, has usually been predicated upon relatively static conditions, as though labor and capital were commonly fully employed, with the industrial machine running with relatively little friction—save when some panic or financial cataclysm, like an earthquake, breaks out and rudely shakes the foundations of the whole financial structure. We shall not get very far toward an understanding either of the financial or the economic system until we recognize, with Mitchell, that "in the real world of business affairs are always undergoing a cumulative change, always passing through some phase of a business cycle into some other phase.

. . . . In fact, if not in theory, a state of change in business conditions is the only normal state."

The truth is that the entire economic system is inextricably tied up with the general financial and credit system. Borrowing corporations not infrequently find that the supply of credit both for fixed- and working-capital purposes is inadequate for their requirements—either because of an insufficient volume of saving, an outflow of reserve funds from the country, an increase in the volume of business beyond the credit capacity of the banks, or a rising price level which requires a steadily expanding volume of liquid capital with which to effect a given volume of production. And because of the phenomenon of the business cycle there are times when the entire business and credit structure is completely disrupted, resulting in unemployment for millions of persons and financial failure for thousands of business concerns whose only fault lies in being unfortunately placed in the economic system.

Business corporations and individual workers are dependent upon the smooth functioning of the credit system not merely for the regularity of profits and wages; as investors in corporate securities they are also dependent upon it for the safety of their savings and the perpetuity of interest payments. Literally almost every individual and every institution is, under modern conditions, vitally interested, as an investor, in the efficient working of the financial system. Corporations and other business concerns are obliged to invest reserve and similar funds in the securities of other corporations; banks, insurance companies, clubs, educational and charitable institutions, labor-union organizations, and trust estates —all are of necessity holders of corporate securities; and, under a pecuniary order, the individual laborer or salaried man can effect the savings required for sickness and age only through the investment of pecuniary income, directly or indirectly, in the bonds and shares of corporate enterprises. To a greater or less degree all classes of society are thus dependent upon the efficient functioning of the pecuniary mechanism. And the entire financial and economic system is bound up with the phenomena of the business cycle, which is itself a result of the evolution of the modern

pecuniary credit system. An adequate discussion of either the modern financial system or the modern economic system must therefore be based upon and constructed around a discussion of the phenomena of the business cycle.

VI. AN OUTLINE OF ADVANCED COURSES

There is outlined below a list of the advanced courses in the field of finance which may be built upon the suggested general course in financial organization. But preceding the advanced specialized courses here listed are two other courses in the field called, respectively, the Business Managers Administration of Finance, and Risks of Capital. These courses follow the course in Financial Organization and round out the first year of work in finance. Their scope and purpose are discussed, in the addendum by my colleague, Dr. Charles O. Hardy.

(*Survey Course*)	(*Advanced Specialized Courses*)
Financial Organization of Society	Commercial-Bank Management Investment-Bank Management Investment and Speculation Insurance Business Cycles Corporation or Business Finance Foreign Exchange and International Finance Laws of Bills and Notes Banking and Financial Law Money, Prices, and the Cost of Living Comparative Financial Systems Economic Theory in the Light of the Modern Pecuniary System

Each of these advanced courses may be followed by problem or research or seminar courses—as many as the needs or the resources of particular institutions require and permit.

I hold no brief for the particular terminology employed in designating these advanced courses or for the suggested grouping of material. Indeed, so far as my own portion of this advanced work is concerned, I have not gone far enough in my own development to have very definite views as to the precise scope and content

of each course. Nor am I at all concerned over their delimitations: while I am in favor of standardization in the more elementary and intermediate work, for the advanced courses I should like to leave the door open to eternal experimentation.

VII. A PEDAGOGICAL ISSUE

One fundamental pedagogical issue is raised in connection with this proposed general-survey course. Is it possible in a general-survey course in finance to give more than a smattering of factual material with reference to each part of the financial system and other than a confused picture of the system as a whole? And would it not be better to give, first, a series of special courses in each division of finance, rounding out the curriculum at the end with a course broadly conceived and designed to tie together the various financial courses previously given, and to give the student a clear understanding of the nature of the modern financial system and its relation to the general economic organization?

With reference to the first question, it will be noted that it is the question that has so often been raised in connection with the general introductory course in economics. Can one give there anything besides a modicum of unrelated factual material? Does the student come out of the introductory course in economics with any real appreciation of the nature of the modern industrial system? Would it not be better for him to take, first, a series of special courses in each of the various fields of economic inquiry? It is quite unnecessary for me to discuss these time-honored issues. The fact that practically all American institutions still hold to the practice of giving a general introductory course—of one sort or another—is sufficient to indicate where the concensus of opinion still lies.

Now, if it is possible in the introductory course in economics to give the student a general survey of the economic system, it should be considerably easier to give him a significant view of the financial part of the economic system before he has taken detailed courses in the various divisions of the field. My experience in giving a general-survey course in finance—as also that of my colleagues who have shared the burden of teaching the course in Financial Organization—has been that there are no serious difficulties involved.

With reference to the second question, whether a general course in finance ought not to be given at the end of the student's training in that field, it seems to me that there is sound argument for such a procedure—not, however, in lieu of a survey course at the beginning, but as supplementary to such a course; just as I feel that there is sound argument for a correlating course in economic theory and another in business organization at the conclusion of one's general training either in economics or business. Incidentally, I may say that I think one may strike pay dirt in subjecting general economic theory to criticism in the light of the phenomena of the modern pecuniary and financial mechanism. It will be observed that in the list of advanced courses, given in the diagram above, such a course is suggested.

It should be added that the course in Financial Organization is given five times a week for the eleven to twelve weeks which constitute a quarter's work at Chicago. This is roughly equivalent to three hours a week for a semester at other institutions. We find no difficulty in compassing the course, as it is now organized, in one quarter's work.

VIII. SOME THEORETICAL CONSIDERATIONS

At the conclusion of this paper, I should like to suggest some of the results of this reorganization of material in the financial field upon my conceptions of certain important fundamental financial issues. Space does not permit more than the merest statement of certain conclusions.

In the first place, I have come to believe that the traditional distinction between fixed and working capital, while pedagogically valuable as a point of departure, has little fundamental validity. Funds derived from the sale of stocks and bonds are used for working-capital purposes, as well as for the creation of plant and equipment; and funds derived from the sale of promissory notes and bills of exchange are often used for fixed-capital purposes. Moreover, it is not merely the funds derived from the sale of stocks and bonds that are used permanently or continuously in business; a large portion of the funds borrowed through the use of promissory notes and bills of exchange is also used continuously by businesses,

for any going concern must have a continuous supply of working or operating capital, much of which, under modern conditions, is continuously borrowed from commercial banking institutions. The only significant distinction therefore is between the *constant* capital of a business—including both the fixed capital and that used for operating purposes—and the *variable* supply, that is, the supply which fluctuates with seasons and with cycles of business. Moreover, the traditional theory that commercial banks do (or should) furnish funds only for extraordinary peak loads is absurd.

In the second place, I have been forced to conclude that that conception of commercial banking which assumes that the function of the commercial bank is only to create media of exchange for use in the marketing of goods is altogether inadequate and misleading. The fact is that commercial banks extend credit for the producing of raw materials and the manufacture of them into finished commodities as well as for the exchanging or marketing of finished goods. But even more significant is the fact that the commercial banking system occupies a dominant position in the entire financial and business structure. Bond houses, insurance companies, savings banks, and trust and mortgage companies, all look to the commercial banking institutions for accommodation in case of need; they are dependent upon the solvency of the commercial banking system for the safety of their deposited funds; and they are dependent upon the lending power of the commercial banking institutions for the conduct of their business from day to day. An inadequacy of commercial banking funds means a direct lessening of the underwriting activities and other operations of investment bankers; it means an impairment of the ability of the savings institutions and of the insurance companies to meet their financial engagements and obligations; and whenever there is a breakdown of the complicated commercial banking mechanism the entire financial system is thrown completely out of gear.

Not only does the commercial banking system constitute the center of the entire financial structure, but it lies as well at the base of all modern business operations. Every business concern, practically speaking, is dependent directly or indirectly upon the commercial banks both for the safety of deposited funds and for a

continuous supply of borrowed capital—both fixed and working capital. Any failure of the commercial banking system to function normally therefore has its direct effect upon every phase of financial and business activity. Commercial banking thus does something more than to supply exchange media and to facilitate the marketing of goods without the use of money. It controls and conditions all business activities; it is the foundation of the whole complex financial and economic organization of modern society.

Finally, the conception of commercial banking in its relation to the entire economic system that has just been outlined has led to a very considerable modification of my views in the matter of price theory. When one conceives the price problem as merely one of comparing the total quantity of goods that has been produced with the quantity of circulating media available for exchanging them, he arrives at certain conclusions. When one considers the relation of commercial banking to productive and financing activities, to the rest of the financial system, and particularly to the phenomena of the business cycle, he is, I believe, certain to find that new light will be shed upon all the controversial issues of monetary theory. At any rate, this has very definitely been the case in my experience.

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ADDENDUM

I have been asked to describe the two courses which follow Mr. Moulton's course in Financial Organization, and with that course make up the year's work in finance and risk-bearing which is required of all students in our School of Commerce and Administration Before describing the content of the courses, however, it may be well to indicate their place in the curriculum. In the Freshman year, our students regularly take one combination business and economics subject throughout the year, the usual sequence being Industrial Society, Business Administration, and Value and Distribution. The Economic History of the United States is sometimes taken, also, in the Spring Quarter. Throughout the remainder of his four years' course, the student's time is largely devoted to economic and professional business courses. Approximately one-half of these studies are general in character, and are required of all students of the School. The other half includes the advanced courses in his own field, with opportunity to include advanced courses in other related